

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1. (currently amended) A method for creating an additive image dither pattern array for addition to an image in a video sequence to reduce artifacts, said method comprising:
 - a. assigning a value to pixels in an additive image dither pattern array tile such that each consecutively-assigned pixel value is placed at a location that is dispersed from previously-placed pixel values that are located in other color channels and other temporal frames of said video sequence, wherein said location is determined with a combined, cross-color-channel, spatio-temporal repellent function.
2. (previously presented) A method according to claim 1 wherein said dispersion from previously-placed pixel values in said other color channels is weighted differently from dispersion from said previously-placed pixel values in said other temporal frames.
3. (previously presented) A method according to claim 1 wherein said dispersion

from previously-placed pixel values in other color channels is weighted such that dispersion from previously-placed pixel values in a first color channel is weighted differently from dispersion from previously-placed pixel values in a second color channel.

4. (currently amended) A method for creating an additive image dither pattern for addition to an image in an image sequence with multiple image description channels for the purpose of artifact reduction, said method comprising:

assigning a value to pixels in an additive image dither pattern tile, wherein said assigning is performed using cross-channel influence and cross-temporal-frame influence, such that subsequently-assigned pixel values are placed at a location that is related to the location of previously-assigned pixel values in the same image description channel, to the location of previously-assigned pixel values in another image description channel and to the location of previously-assigned pixel values in another temporal frame.
5. (previously presented) A method according to claim 4 wherein said location is dispersed from the location of previously-assigned pixel values in the same image description channel, from the location of previously-assigned pixel values in another image description channel and from the location of previously-assigned pixel values in another temporal frame.

6. (previously presented) A method according to claim 4 wherein said location is dispersed from the location of previously-assigned pixel values in the same image description channel, from the location of previously-assigned pixel values in another image description channel and from the location of previously-assigned pixel values in another temporal frame using a combined repellent function comprising a spatial/temporal function and a cross-color-channel function.
7. (previously presented) A method according to claim 4 wherein said relation to the location of previously-designated pixels is channel specific such that pixel values in one color channel have a different relationship on said location than pixel values in another channel.
8. (previously presented) A method according to claim 4 wherein said relation to the location of previously-designated pixels is channel specific such that pixel values in color channels other than the channel of the pixel being designated have a different relationship on said location than pixel values in the same channel.
9. (original) A method according to claim 4 wherein said image description channels are color channels.
10. (original) A method according to claim 4 wherein said image description channels comprise three channels for each of a red, green and blue color.

11. (canceled).

12. (original) A method according to claim 4 wherein pixel values in said channels are assigned in parallel with cross-channel dispersion influence for each channel.

13. (currently amended) A method for creating a spatio-temporal array of additive image dither patterns for use in reducing contouring artifacts in images, said method comprising:

- a. establishing a spatio-temporal array of additive image dither pattern tiles comprising a plurality of temporal framesets, each of said framesets comprising a plurality of pattern tiles for each of a plurality of color channels; and
- b. designating pixel values in said additive image dither pattern tiles wherein subsequently-designated pixel values are dispersed, by a spatial/temporal/color-channel repellent function, from previously-designated pixel values in the same dither pattern tile, previously designated pixel values in dither pattern tiles at corresponding locations in other color channels and dither pattern tiles at corresponding locations in other temporal frames wherein said designating produces an additive image dither pattern array that is spatially-high-pass within said tiles, high-pass relative to co-located color channel tiles and high-pass in relation to co-located tiles in adjacent temporal frames.

14. (previously presented) A method according to claim 13 wherein said dispersion from pixel values in other temporal frames is weighted wherein temporal frames more temporally distant from a to-be-designated pixel value have a lower dispersion than closer temporal frames.

15. (previously presented) A method according to claim 13 wherein said dispersion from pixel values in other color channels is weighted wherein other color channels have a lower dispersion than the color channel in which a pixel value is being designated.

16. (original) A method according to claim 13 wherein pixel values designated in a last temporal frame are considered temporally adjacent to a first-designated frame wherein said pixel values in said first-designated frame have a dispersion effect on pixels designated in said last frame.

17. (canceled).

18. (currently amended) A system for creating a spatio-temporal array of additive image dither patterns, said method comprising:

- a. a spatio-temporal array of additive image dither pattern tiles comprising a plurality of temporal framesets, each of said framesets comprising a plurality of pattern tiles for each of a plurality of color channels; and
- b. a designator for designating pixel values in said dither pattern tiles

wherein subsequently-designated pixel values are spatially dispersed from previously-designated pixel values in the same dither pattern tile dither pattern tiles in other color channels, and dither pattern tiles in other temporal frames.

19. (canceled)

20. (currently amended) A method for creating a spatio-temporal array of additive

image dither patterns, said method comprising:

- a. establishing a first temporal frameset comprising dither pattern tiles for each of a plurality of color channels;
- b. selecting a first pixel value level for subsequent pixel value designation;
- c. establishing a pixel quantity;
- d. selecting a color channel for pixel value designation;
- e. calculating the location of an extreme value of a combined cross-color-channel and spatial/temporal repellent function that is influenced by the presence of designated pixels in said selected color channel, another color channel and another temporal frame;
- f. designating a pixel value corresponding to said first pixel value level at said location;
- g. updating said combined function to account for the presence of said newly designated pixel value;
- h. selecting a new color channel

- i. repeating steps e through h until a pixel value has been designated in all color channels;
- j. incrementing a pixel counter value;
- k. repeating steps e through j until said pixel counter value equals said pixel quantity;
- l. selecting a new pixel value level;
- m. repeating steps b through l until all levels have been designated;
- n. advancing to the next temporal frame; and
- o. repeating steps b through n until all temporal frames have been designated.